

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Thomas SCHERB et al. Confirmation No: 9642

Appln. No. : 10/560,074 Group Art Unit: 1791

I.A. Filed : June 9, 2004 Examiner: Jose A. Fortuna

For : DEVICE FOR PRODUCING A WEB OF TISSUE

**APPEAL BRIEF UNDER 37 C.F.R. § 41.37**

Commissioner for Patents  
U.S. Patent and Trademark Office  
Customer Window, Mail Stop Appeal Brief-Patents  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314  
Sir:

This appeal is from the Examiner's final rejection of claims 224-243 and 245-289 as set forth in the Final Office Action of September 13, 2010. A Notice of Appeal, in response to the September 13, 2010 Final Office Action, was filed on February 14, 2011, and the instant Appeal Brief is being timely submitted within two months of the filing of a Notice of Appeal, i.e., by April 14, 2011.

Payment for the requisite fee under 37 C.F.R. 41.20(b)(2) in the amount of \$ 540.00 for the filing of the Appeal Brief is being filed concurrently herewith. No extensions of time are believed to be required. If for any reason a necessary fee is required for consideration of the instant paper, authorization is hereby given to charge the fee for the Appeal Brief and any necessary extension of time fees to Deposit Account No. 19-0089.

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**(I) REAL PARTY IN INTEREST**

The real party in interest is Voith Patent GmbH as evidenced in the Change of Name recorded in the U.S. Patent and Trademark Office on March 23, 2011 at Reel 026008 and Frame 0386 in the instant US Patent Application No. 10/560,074. Prior to the change of name, Voith Paper Patent GmbH was the owner of the instant application by an assignment recorded in the U.S. Patent and Trademark Office on May 17, 2006 at Reel 017633 and Frame 0510 in the instant US Patent Application No. 10/560,074.

**(II) RELATED APPEALS AND INTERFERENCES**

A Notice of Appeal was filed in the instant application on February 14, 2011. No related appeals and/or interferences are pending.

**(III) STATUS OF THE CLAIMS**

Claims 224-243 and 245-289 are the only pending claims. Claims 1-223 and 244 are canceled. Claims 224-243 and 245-289 stand finally rejected and are the subject of the instant Appeal.

**(IV) STATUS OF THE AMENDMENTS**

A Response under 37 C.F.R. § 1.116 was filed on December 13, 2010 requesting reconsideration of the finally rejected claims. Appellant submits that no other amendments after final have been filed. An Advisory Action was issued on January 14, 2011 indicating that the Response was considered but did not place the application in condition for allowance.

**(V) SUMMARY OF THE CLAIMED SUBJECT MATTER**

**A. The Claimed Subject Matter**

**1. INDEPENDENT CLAIM 224**

With reference to page 18, line 16 through page 30, line 32 of the instant application (see Clean Version of the Substitute Specification) and to the figures, and by way of non-limiting example, the invention provides for a device (see Fig. 1) for producing a tissue web (103) comprising at least one drying cylinder (101), a creping doctor (104) arranged on the at least one drying cylinder (101) and a winding device (105) for winding up the tissue web (see page 18, lines 17-23). The winding device (105) comprises a winding nip (110) formed between a winding drum (107) and a spool (106). A transfer device (108/109) at least largely bridges an entire distance between the creping doctor (104) and the winding device (105) and moves around the winding drum (107) of the winding device (see page 18, line 26 to page 19, line 8). A free web draw (113) is arranged between the creping doctor (104) and the winding device (see page 19, lines 4-7). A mechanism (83 and/or 84) is included for at least one of controlling and measuring a line force in the winding nip (see page 21, lines 4-9 and page 25, lines 9-30). The tissue web (103) is supported on only one side by the transfer device (109) between the free web draw (113) and the winding nip (see Fig. 1)). The line force is less than or equal to 0.8 kN/m (see page 22, lines 1-5 and page 26, lines 13-17).

**2. INDEPENDENT CLAIM 274**

With reference to page 18, line 16 through page 30, line 32 of the instant application (see Clean Version of the Substitute Specification) and to the figures, and by way of non-limiting example, the invention provides for a device (see Fig. 1) for producing a tissue web (103) comprising at least one drying cylinder (101), a creping doctor (104) arranged on the at least one drying cylinder

(101), and a winding device (105) for winding up the tissue web (see page 18, lines 17-23). The winding device (105) comprises a winding nip (110) formed between a winding drum (107) and a spool 106). A transfer belt (109) at least largely bridges an entire distance between the creping doctor (104) and the winding device (105) and moves around the winding drum (107) of the winding device (see page 18, line 26 to page 19, line 8). A free web draw (113) is arranged between the creping doctor (104) and the winding device (see page 19, lines 4-7). A mechanism (83 and/or 84) is included for at least one of controlling and measuring a line force in the winding nip (see page 21, lines 4-9 and page 25, lines 9-30). The tissue web (103) is supported on only one side by the transfer belt (109) between the free web draw (113) and the winding nip (110) and the tissue web (103) has an opposite unsupported side between the creping doctor (104) and the winding device (see Fig. 1). The line force is less than or equal to 0.8 kN/m (see page 22, lines 1-5 and page 26, lines 13-17).

#### **(VI) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

**Whether claims 224-243 and 245-289 are improperly rejected under 35 U.S.C. § 103(a) as unpatentable over US Patent Application Publication No. 2003/0111199 to CLARKE et al. in view of any one of the following documents; US 2001/0052560 to BEISSWANGER et al. or US 6,250,580 to MADRZAK et al. or US 3,599,889 to PFEIFFER or US 6,797,115 to KLERELID et al.**

#### **(VII) ARGUMENT RE. PRIOR ART REJECTION**

**The rejection of claims 224-243 and 245-289 under 35 U.S.C. § 103(a) as unpatentable over US Patent Application Publication No. 2003/0111199 to CLARKE et al. in view of any one of the following documents; US 2001/0052560 to BEISSWANGER et al. or US 6,250,580 to MADRZAK et al. or US 3,599,889 to PFEIFFER or US 6,797,115 to KLERELID et al. is in error and should be reversed.**

#### **REJECTION OF INDEPENDENT CLAIM 224 UNDER 35 U.S.C. § 103 IS IN ERROR**

**The rejection of claim 224 under 35 U.S.C. § 103(a) as being unpatentable over CLARKE in view of any one of the following documents; BEISSWANGER or MADRZAK or FEIFFER or KLERELID is in error and should be reversed.**

The Examiner asserts that CLARKE, and specifically Fig. 4, teaches or suggests each of the features recited in claim 224 with the exception of the line force controlling or measuring mechanism and the recited line force. However, he asserts that such devices are known from each of the secondary documents. Appellant respectfully disagrees.

Appellant respectfully submits that this rejection is improper and in error because no proper combination of CLARKE and any one of BEISSWANGER, MADRZAK, PFEIFFER or KLERELID under 35 U.S.C. § 103(a) discloses or suggests: *inter alia*, at least one drying cylinder, a creping doctor arranged on the at least one drying cylinder, a winding device for winding up the tissue web, the winding device comprising a winding nip formed between a winding drum and a spool, a transfer device at least largely bridging an entire distance between the creping doctor and the winding device, and moves around the winding drum of the winding device, a free web draw arranged between the creping doctor and the winding device, and a mechanism for at least one of controlling and measuring a line force in the winding nip, wherein the tissue web is supported on only one side by the transfer device between the free web draw and the winding nip, and wherein the line force is less than or equal to 0.8 kN/m, as recited in independent claim 224.

Appellant does not dispute that CLARKE teaches a paper machine utilizing a free web draw between a doctor and a transfer belt (see, e.g., Fig. 4) or that Fig. 4 of CLARKE arguably shows a winding nip between reel drum 36a and spool 37a (see paragraph [0036]). However, it is submitted that CLARKE does not teach or suggest a mechanism for at least one of controlling and measuring a line force in the winding nip, much less, that the line force is less than or equal to 0.8 kN/m. Indeed, the Examiner has acknowledged as much in the instant Office Action.

BEISSWANGER, MADRZAK and PFEIFFER do not cure the deficiencies of CLARKE. While it is true that each of BEISSWANGER, MADRZAK and PFEIFFER teaches devices for controlling a winding nip, none of these documents do so by passing a belt (or transfer device) and tissue web through such a nip. Indeed, the Examiner appeared to acknowledged as much in the Interview of December 8, 2010.

KLERELID also does not cure the deficiencies of CLARKE. As noted in the Interview of December 8, 2010, while it true that KLERELID contains language regarding how a reel-up can utilize relatively low nip loads of 100-250 N/m (see col. 9, lines 43-53), there is no disclosed device or mechanism in KLERELID for controlling or measuring the noted values. Nor is it apparent that the recited nip load necessarily requires such a device or mechanism.

Appellant also disagrees with the Examiner's assertion, emphasized in the Interview of December 8, 2010, that KLERELID can be interpreted to inherently utilize the recited mechanism for controlling and/or measuring a line force in the winding nip. Even assuming that such devices were known in the art (as alleged by the Examiner in the Interview of December 8, 2010), no prior art has been identified by the Examiner in this case which discloses or suggests passing a tissue web and transfer device or belt through a winding nip utilizing the recited line force as well as a mechanism for controlling and/or measuring a line force in the winding nip, much less, in combination with the other recited features.

Furthermore, the Examiner's inherency argument appears inconsistent with the non-precedential Board decision *Ex parte O'BRIEN* et al. which, in citing *Continental Can Co. v. Monsanto Co.*, 948 F.2d 1264, 1268 (Fed. Cir. 1991), explains on pages 5 and 6 that "when a reference is silent about an asserted inherent characteristic, it must be clear that the missing

descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill.” It is respectfully submitted that the Examiner has not demonstrated “that the missing descriptive matter is necessarily present in the thing described in the reference”, much less, “that it would be so recognized by persons of ordinary skill”. At the very least, the Examiner should set forth prior art demonstrating that one cannot achieve the disclosed nip loads of KLERELID without using a mechanism for controlling and/or measuring a line force in the winding nip that corresponds to that recited in Appellant’s claims. It is noted that this argument has not even been specifically alleged by the Examiner in the pending application. Moreover, if the Examiner is correct that one having ordinary skill in the art well knows to use such a mechanism in a winding nip receiving therein a tissue web and transfer device or belt, it should pose little difficulty in providing such evidence in the prior art. However, the record as it stands does not appear to support the Examiner’s inherency assertion consistent with *Ex parte O'BRIEN*.

For the foregoing reasons and because these documents fail to disclose or suggest the above-noted features of the instant invention, Appellant submits that these documents fail to disclose or suggest each and every recited feature of claim 224. Accordingly, Applicant submits that the Examiner has erred in failed to provide adequate evidentiary basis to support a rejection of obviousness under 35 U.S.C. § 103(a), and that the instant rejection is improper.

Accordingly, as CLARKE with BEISSWANGER or MADRZAK or PFEIFFER or KLERELID erroneously fail to disclose or suggest the combination of features recited in at least claim 224, this rejection should be reversed.

**REJECTION OF INDEPENDENT CLAIM 274 UNDER 35 U.S.C. § 103 IS IN ERROR**

The rejection of claim 274 under 35 U.S.C. § 103(a) as being unpatentable over CLARKE in view of any one of the following documents; BEISSWANGER or MADRZAK or PFEIFFER or KLERELID is in error and should be reversed.

The Examiner asserts that CLARKE, and specifically Fig. 4, teaches or suggests each of the features recited in claim 274 with the exception of the line force controlling or measuring mechanism and the recited line force. However, he asserts that such devices are known from each of the secondary documents. Appellant respectfully disagrees.

Appellant respectfully submits that this rejection is improper and in error because no proper combination of CLARKE and any one of BEISSWANGER, MADRZAK, PFEIFFER or KLERELID under 35 U.S.C. § 103(a) discloses or suggests: inter alia, at least one drying cylinder, a creping doctor arranged on the at least one drying cylinder, a winding device for winding up the tissue web, the winding device comprising a winding nip formed between a winding drum and a spool, a transfer belt at least largely bridging an entire distance between the creping doctor and the winding device and moving around the winding drum of the winding device; a free web draw arranged between the creping doctor and the winding device, and a mechanism for at least one of controlling and measuring a line force in the winding nip, wherein the tissue web is supported on only one side by the transfer belt between the free web draw and the winding nip and the tissue web has an opposite unsupported side between the creping doctor and the winding device, and wherein the line force is less than or equal to 0.8 kN/m, as recited in independent claim 274.

Appellant does not dispute that CLARKE teaches a paper machine utilizing a free web draw between a doctor and a transfer belt (see, e.g., Fig. 4) or that Fig. 4 of CLARKE arguably shows a winding nip between reel drum 36a and spool 37a (see paragraph [0036]). However, it is submitted

that CLARKE does not teach or suggest a mechanism for at least one of controlling and measuring a line force in the winding nip, much less, that the line force is less than or equal to 0.8 kN/m. Indeed, the Examiner has acknowledged as much in the instant Office Action.

BEISSWANGER, MADRZAK and PFEIFFER do not cure the deficiencies of CLARKE. While it is true that each of BEISSWANGER, MADRZAK and PFEIFFER teaches devices for controlling a winding nip, none of these documents do so by passing a belt (or transfer device) and tissue web through such a nip. Indeed, the Examiner appeared to acknowledged as much in the Interview of December 8, 2010.

KLERELID also does not cure the deficiencies of CLARKE. As noted in the Interview of December 8, 2010, while it true that KLERELID contains language regarding how a reel-up can utilize relatively low nip loads of 100-250 N/m (see col. 9, lines 43-53), there is no disclosed device or mechanism in KLERELID for controlling or measuring the noted values. Nor is it apparent that the recited nip load necessarily requires such a device or mechanism.

Again, Appellant also disagrees with the Examiner's assertion, emphasized in the Interview of December 8, 2010, that KLERELID can be interpreted to inherently utilize the recited mechanism for controlling and/or measuring a line force in the winding nip. Even assuming that such devices were known in the art (as alleged by the Examiner in the Interview of December 8, 2010), no prior art has been identified by the Examiner in this case which discloses or suggests passing a tissue web and transfer device or belt through a winding nip utilizing the recited line force as well as a mechanism for controlling and/or measuring a line force in the winding nip, much less, in combination with the other recited features.

As noted above, the Examiner's inherency argument appears inconsistent with the non-precedential Board decision *Ex parte O'BRIEN* et al. which, in citing *Continental Can Co. v. Monsanto Co.*, 948 F.2d 1264, 1268 (Fed. Cir. 1991), explains on pages 5 and 6 that "when a reference is silent about an asserted inherent characteristic, it must be clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." It is respectfully submitted that the Examiner has not demonstrated "that the missing descriptive matter is necessarily present in the thing described in the reference", much less, "that it would be so recognized by persons of ordinary skill". At the very least, the Examiner should set forth prior art demonstrating that one cannot achieve the disclosed nip loads of KLERELID without using a mechanism for controlling and/or measuring a line force in the winding nip that corresponds to that recited in Appellant's claims. It is noted that this argument has not even been specifically alleged by the Examiner in the pending application. Moreover, if the Examiner is correct that one having ordinary skill in the art well knows to use such a mechanism in a winding nip receiving therein a tissue web and transfer device or belt, it should pose little difficulty in providing such evidence in the prior art. However, the record as it stands does not appear to support the Examiner's inherency assertion consistent with *Ex parte O'BRIEN*.

For the foregoing reasons and because these documents fails to disclose or suggest the above-noted features of the instant invention, Appellant submits that these documents fail to disclose or suggest each and every recited feature of claim 274. Accordingly, Applicant submits that the Examiner has erred in failed to provide adequate evidentiary basis to support a rejection of obviousness under 35 U.S.C. § 103(a), and that the instant rejection is improper.

Accordingly, as CLARKE with BEISSWANGER or MADRZAK or PFEIFFER or  
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KLERELID erroneously fail to disclose or suggest the combination of features recited in at least claim 274, this rejection should be reversed.

**REJECTION OF DEPENDENT CLAIM 228 UNDER 35 U.S.C. § 103 IS IN ERROR**

The Examiner asserts that a fair combination of CLARKE and one of the devices known from each of the secondary documents teaches or suggests the features of claim 228. Appellant respectfully disagrees.

Dependent claim 228 depends from claim 224, and recites:

wherein the spool is one of a driven spool and a spool having displacement control and wherein the transfer device is led through the winding nip of the winding device with the tissue web.

Although it is noted that BEISSWANGER shows a winding device having a driven spool 10 and that MADRZAK teaches a mechanism for displacement control 39/41, other than Applicant's application (the use of which is improper), there is no basis for using such devices of a device having a free web draw, supporting a web on only one side, and utilizing a winding nip whose the line force is less than or equal to 0.8 kN/m. Indeed, the only apparent basis noted in the Final Office Action for finding the features of claim 228 obvious is that they are, in the Examiner's opinion, known in the art

Accordingly, as CLARKE with BEISSWANGER or MADRZAK or PFEIFFER or KLERELID erroneously fail to disclose or suggest the combination of features recited in at least claim 228, this rejection should be reversed.

**REJECTION OF DEPENDENT CLAIM 230 UNDER 35 U.S.C. § 103 IS IN ERROR**

The Examiner asserts that a fair combination of CLARKE and one of the devices known from each of the secondary documents teaches or suggests the features of claim 230. Appellant

respectfully disagrees.

Dependent claim 230 depends from claim 224, and recites:

wherein the line force is about 0.2 kN/m.

The Examiner argues that because the secondary references teach to control the nip line force and that it is known to keep the nip line force low, this renders obvious Applicant's recited line force. This is error for at least the following reasons. First, it is beside the point because Applicant has not, in principle, said otherwise. What Applicant disputes is using the recited line force as well as doing so in combination with the other claim features. Applicant has noted that conventional winding devices (see Fig. 6) can use a line force in the winding nip. However, in discussing the same on paragraph [0123] of the instant application, Applicant has noted that such conventional devices use line forces of around 0.8 kN/m. In contrast, Applicant's claimed range in claim 230 is very different at about 0.2 kN/m. The Examiner's argument thus ignores the actual claim language. Regardless of whether the applied art teaches to use low or controlled line forces in a winding nip, this is at best insufficient to suggest using a specific line force of about 0.2 kN/m alone or in combination with the other recited features.

Accordingly, as CLARKE with BEISSWANGER or MADRZAK or PFEIFFER or KLERELID erroneously fail to disclose or suggest the combination of features recited in at least claim 230, this rejection should be reversed.

**REJECTION OF DEPENDENT CLAIM 231 UNDER 35 U.S.C. § 103 IS IN ERROR**

The Examiner asserts that a fair combination of CLARKE and one of the devices known from each of the secondary documents teaches or suggests the features of claim 231. Appellant

respectfully disagrees.

Dependent claim 231 depends from claim 224, and recites:

one of:

a device for subjecting the tissue web to wet formation arranged between the at least one drying cylinder and the winding device;

a device for rewetting and applying a vacuum to the tissue web arranged between the at least one drying cylinder and the winding device;

a device for rewetting and a device for applying a vacuum to the tissue web arranged between the at least one drying cylinder and the winding device;

a device for rewetting and a device for applying a vacuum to the tissue web arranged between the at least one drying cylinder and the winding device, the rewetting device being arranged on an upper side of the tissue web and the device for applying vacuum being arranged on an underside of the tissue web; and

a device for rewetting, a device for applying a vacuum, and a device for drying the tissue web arranged between the at least one drying cylinder and the winding device, the drying device is arranged after the rewetting device and the device for applying a vacuum.

Although it is noted that CLARKE and KLERELID teach to use one or more vacuum devices (see ref. 34 in Fig. 4 of CLARKE and refs. 40-42 in Fig. 1 of KLERELID), no prior art has been cited for teaching or suggesting wet devices in the areas of these vacuum devices. Indeed, the only apparent basis noted in the Final Office Action for finding the features of claim 231 obvious is that they are, in the Examiner's opinion, known in the art.

Accordingly, as CLARKE with BEISSWANGER or MADRZAK or PFEIFFER or KLERELID erroneously fail to disclose or suggest the combination of features recited in at least claim 231, this rejection should be reversed.

**REJECTION OF DEPENDENT CLAIM 235 UNDER 35 U.S.C. § 103 IS IN ERROR**

The Examiner asserts that a fair combination of CLARKE and one of the devices known from each of the secondary documents teaches or suggests the features of claim 235. Appellant

respectfully disagrees.

Dependent claim 235 depends from claim 224, and recites:

wherein the device does not utilize a threading system.

Although the Examiner has alleged that this feature is somehow taught in the applied art, no language has been cited in any of the applied art as teaching or suggesting this feature. Appellant notes that Applicant has achieved this feature by using a short free web draw and a reduced line force in the winding nip (see paragraph [0097] of the instant application. Respectfully, no art has been cited by the Examiner which even remotely teaches or suggests that using this combination features can result in the advantage of not needing a threading system.

Accordingly, as CLARKE with BEISSWANGER or MADRZAK or PFEIFFER or KLERELID erroneously fail to disclose or suggest the combination of features recited in at least claim 235, this rejection should be reversed.

**REJECTION OF DEPENDENT CLAIM 238 UNDER 35 U.S.C. § 103 IS IN ERROR**

The Examiner asserts that a fair combination of CLARKE and one of the devices known from each of the secondary documents teaches or suggests the features of claim 238. Appellant respectfully disagrees.

Dependent claim 238 depends from claim 224, and recites:

one of:

a pulper arranged under the at least one drying cylinder;  
a pulper arranged under the winding device; and  
a device for blowing off excess paper present on a winding drum of the winding device into a pulper.

Although the Examiner has alleged that these features are somehow taught in the applied art,

no language has been cited in any of the applied art as teaching or suggesting any of these features. Respectfully, an affirmative answer as to whether such features as pulpers are known is insufficient to establish that it would have been obvious to use the same on the specific arrangement or location recited in claims 224 and 238.

Accordingly, as CLARKE with BEISSWANGER or MADRZAK or PFEIFFER or KLERELID erroneously fail to disclose or suggest the combination of features recited in at least claim 238, this rejection should be reversed.

**REJECTION OF DEPENDENT CLAIM 239 UNDER 35 U.S.C. § 103 IS IN ERROR**

The Examiner asserts that a fair combination of CLARKE and one of the devices known from each of the secondary documents teaches or suggests the features of claim 239. Appellant respectfully disagrees.

Dependent claim 239 depends from claim 224, and recites:

one of:  
an air deflector arranged on a winding drum of the winding device; and  
a doctor arranged on a winding drum of the winding device.

Although the Examiner has alleged that these features are somehow taught in the applied art, no language has been cited in any of the applied art as teaching or suggesting any of these features. Respectfully, although it is not disputed that such features as doctors are known (indeed, CLARKE shows a doctor 14 in Fig. 4), this is insufficient to establish that it would have been obvious to use the same on the specific arrangement or location recited in claims 224 and 239.

Accordingly, as CLARKE with BEISSWANGER or MADRZAK or PFEIFFER or KLERELID erroneously fail to disclose or suggest the combination of features recited in at least

claim 239, this rejection should be reversed.

**REJECTION OF DEPENDENT CLAIM 242 UNDER 35 U.S.C. § 103 IS IN ERROR**

The Examiner asserts that a fair combination of CLARKE and one of the devices known from each of the secondary documents teaches or suggests the features of claim 242. Appellant respectfully disagrees.

Dependent claim 242 depends from claims 241 and 224, and recites:

wherinc the headbox comprises a multilayer headbox, to which at least two grades of stock can be supplied, and further comprising one of:

a device for influence a hardness of a roll upon which the tissue web is wound;  
a device for controlling a hardness of a roll upon which the tissue web is wound; and  
a device for regulating a hardness of a roll upon which the tissue web is wound.

Although the Examiner has alleged that these features are somehow taught in the applied art, no language has been cited in any of the applied art as teaching or suggesting any of these features. Respectfully, although it is not disputed that such features as influencing a hardness of a winding roll are known, this is insufficient to establish that it would have been obvious to use the same on the specific arrangement or location recited in claims 224, 241 and 242.

Accordingly, as CLARKE with BEISSWANGER or MADRZAK or PFEIFFER or KLERELID erroneously fail to disclose or suggest the combination of features recited in at least claim 242, this rejection should be reversed.

**REJECTION OF DEPENDENT CLAIM 248 UNDER 35 U.S.C. § 103 IS IN ERROR**

The Examiner asserts that a fair combination of CLARKE and one of the devices known from each of the secondary documents teaches or suggests the features of claim 248. Appellant respectfully disagrees.

Dependent claim 248 depends from claim 224, and recites:

one of:  
a backing unit assigned to the at least one drying cylinder; and  
a shoe press unit arranged at the at least one drying cylinder.

Although the Examiner has alleged that these features are somehow taught in the applied art, no language has been cited in any of the applied art as teaching or suggesting any of these features. Respectfully, although it is not disputed that such features as a backing unit and a show press are known, this is insufficient to establish that it would have been obvious to use the same on the specific arrangement or location recited in claims 224 and 248.

Accordingly, as CLARKE with BEISSWANGER or MADRZAK or PFEIFFER or KLERELID erroneously fail to disclose or suggest the combination of features recited in at least claim 248, this rejection should be reversed.

**REJECTION OF DEPENDENT CLAIM 252 UNDER 35 U.S.C. § 103 IS IN ERROR**

The Examiner asserts that a fair combination of CLARKE and one of the devices known from each of the secondary documents teaches or suggests the features of claim 252. Appellant respectfully disagrees.

Dependent claim 252 depends from claim 224, and recites:

wherein the tissue web is subjected to greater drying by a drying hood than the at least one drying cylinder.

Although the Examiner has alleged that these features are somehow taught in the applied art, no language has been cited in any of the applied art as teaching or suggesting any of these features. Respectfully, although it is not disputed that such features as a drying hood and a drying cylinder are

known, this is insufficient to establish that it would have been obvious to use the same on the specific arrangement or manner recited in claims 224 and 252.

Accordingly, as CLARKE with BEISSWANGER or MADRZAK or PFEIFFER or KLERELID erroneously fail to disclose or suggest the combination of features recited in at least claim 252, this rejection should be reversed.

**REJECTION OF DEPENDENT CLAIM 253 UNDER 35 U.S.C. § 103 IS IN ERROR**

The Examiner asserts that a fair combination of CLARKE and one of the devices known from each of the secondary documents teaches or suggests the features of claim 253. Appellant respectfully disagrees.

Dependent claim 253 depends from claims 224 and 252, and recites:

wherein a ratio of the proportion of the drying by the drying hood and the proportion of the drying with the at least one drying cylinder is one of:  
greater than 55:45;  
greater than or equal to 60:30;  
greater than or equal to 65:35; and  
greater than or equal to 70:30.

Although the Examiner has alleged that these features are somehow taught in the applied art, no language has been cited in any of the applied art as teaching or suggesting any of these features. As with claim 252, although it is not disputed that such features as a drying hood and a drying cylinder are known, this is insufficient to establish that it would have been obvious to use the same on the specific arrangement, manner and/or the recited ratio of the proportion recited in claims 224, 252 and 253.

Accordingly, as CLARKE with BEISSWANGER or MADRZAK or PFEIFFER or KLERELID erroneously fail to disclose or suggest the combination of features recited in at least claim 253, this rejection should be reversed.

**REJECTION OF DEPENDENT CLAIM 257 UNDER 35 U.S.C. § 103 IS IN ERROR**

The Examiner asserts that a fair combination of CLARKE and one of the devices known from each of the secondary documents teaches or suggests the features of claim 257. Appellant respectfully disagrees.

Dependent claim 257 depends from claims 224 and 224, and recites:

wherein the line force in the winding nip between the carrier drum and the spool is one of:  
less than or equal to 0.5 kN/m; and  
less than or equal to 0.2 kN/m.

The Examiner argues that because the secondary references teach to control the nip line force and that it is known to keep the nip line force low, this renders obvious Applicant's recited line force. This is error for at least the following reasons. First, it is beside the point because Applicant has not, in principle, said otherwise. What Applicant disputes is using the recited line force as well as doing so in combination with the other claim features. Applicant has noted that conventional winding devices (see Fig. 6) can use a line force in the winding nip. However, in discussing the same on paragraph [0123] of the instant application, Applicant has noted that such conventional devices use line forces of around 0.8 kN/m. In contrast, Applicant's claimed range in claim 257 is very different at less than or equal to 0.5 kN/m or 0.2 kN/m. The Examiner's argument thus ignores the actual claim language. Regardless of whether the applied art teaches to use low or controlled line forces in a winding nip, this is at best insufficient to suggest using a specific line force of less than

or equal to 0.5 kN/m or 0.2 kN/m alone or in combination with the other recited features.

Accordingly, as CLARKE with BEISSWANGER or MADRZAK or PFEIFFER or KLERELID erroneously fail to disclose or suggest the combination of features recited in at least claim 257, this rejection should be reversed.

**REJECTION OF DEPENDENT CLAIM 258 UNDER 35 U.S.C. § 103 IS IN ERROR**

The Examiner asserts that a fair combination of CLARKE and one of the devices known from each of the secondary documents teaches or suggests the features of claim 258. Appellant respectfully disagrees.

Dependent claim 258 depends from claims 224 and 256, and recites:

wherein a maximum difference between a circumferential speed of the spool and a circumferential speed of the carrier drum is less than 10%.

Although the Examiner has alleged that these features are somehow taught in the applied art, no language has been cited in any of the applied art as teaching or suggesting any of these features. Respectfully, although it is not disputed that such features as a spool and carrier drum are known, this is insufficient to establish that it would have been obvious to use the same on the specific arrangement and the recited maximum speed difference range recited in claims 224, 256 and 258.

Accordingly, as CLARKE with BEISSWANGER or MADRZAK or PFEIFFER or KLERELID erroneously fail to disclose or suggest the combination of features recited in at least claim 258, this rejection should be reversed.

**REJECTION OF DEPENDENT CLAIM 259 UNDER 35 U.S.C. § 103 IS IN ERROR**

The Examiner asserts that a fair combination of CLARKE and one of the devices known

from each of the secondary documents teaches or suggests the features of claim 259. Appellant respectfully disagrees.

Dependent claim 259 depends from claim 224, and recites:

one of:

an arrangement for maintaining the free web draw and a drive assigned to the winding drum, the free web draw being maintained irrespective of the line force produced in the winding nip;

an arrangement for controlling the free web draw and a drive assigned to the winding drum, the free web draw being controlled irrespective of the line force produced in the winding nip;

an arrangement for regulating the free web draw and a drive assigned to the winding drum, the free web draw being controlled irrespective of the line force produced in the winding nip;

an arrangement for controlling the free web draw between the at least one drying cylinder and the winding drum via a drive assigned to the winding drum as a function of a speed of the winding drum; and

an arrangement for regulating the free web draw between the at least one drying cylinder and the winding drum via a drive assigned to the winding drum as a function of a speed of the winding drum.

Although the Examiner has alleged that these features are somehow taught in the applied art, no language has been cited in any of the applied art as teaching or suggesting any of these features. Appellant notes that Applicant recited a relationship between the free web draw, the drive or speed of the winding drum, and the line force. Respectfully, no art whatsoever has been cited by the Examiner which even remotely teaches or suggests any of the above-noted features. Indeed, no document has even been cited which even remotely controls, regulates or maintains a free web draw.

Accordingly, as CLARKE with BEISSWANGER or MADRZAK or PFEIFFER or KLERELID erroneously fail to disclose or suggest the combination of features recited in at least claim 259, this rejection should be reversed.

**REJECTION OF DEPENDENT CLAIM 261 UNDER 35 U.S.C. § 103 IS IN ERROR**

The Examiner asserts that a fair combination of CLARKE and one of the devices known

from each of the secondary documents teaches or suggests the features of claim 261. Appellant respectfully disagrees.

Dependent claim 261 depends from claim 224, and recites:

wherein the winding drum is a carrier drum and the spool is a movable spool, and wherein the line force is one of:

less than or equal to 0.5 kN/m; and  
less than or equal to 0.2 kN/m.

The Examiner argues that because the secondary references teach to control the nip line force and that it is known to keep the nip line force low, this renders obvious Applicant's recited line force. This is error for at least the following reasons. First, it is beside the point because Applicant has not, in principle, said otherwise. What Applicant disputes is using the recited line force as well as doing so in combination with the other claim features. Applicant has noted that conventional winding devices (see Fig. 6) can use a line force in the winding nip. However, in discussing the same on paragraph [0123] of the instant application, Applicant has noted that such conventional devices use line forces of around 0.8 kN/m. In contrast, Applicant's claimed range in claim 261 is very different at less than or equal to 0.5 kN/m or 0.2 kN/m. The Examiner's argument thus ignores the actual claim language. Regardless of whether the applied art teaches to use low or controlled line forces in a winding nip, this is at best insufficient to suggest using a specific line force of less than or equal to 0.5 kN/m or 0.2 kN/m alone or in combination with the other recited features.

Accordingly, as CLARKE with BEISSWANGER or MADRZAK or PFEIFFER or KLERELID erroneously fail to disclose or suggest the combination of features recited in at least claim 261, this rejection should be reversed.

**REJECTION OF DEPENDENT CLAIM 263 UNDER 35 U.S.C. § 103 IS IN ERROR**

The Examiner asserts that a fair combination of CLARKE and one of the devices known from each of the secondary documents teaches or suggests the features of claim 263. Appellant respectfully disagrees.

Dependent claim 263 depends from claim 224, and recites:

wherein the winding drum is a carrier drum and the spool is a movable spool, and wherein one of:

the line force in the winding nip of the winding device is set and controller and a region of the winding nip is monitored with a CCD camera;

the line force in the winding nip of the winding device is set and controlled and a region of the winding nip is monitored with a CCD camera; and

a CCD camera registers a distance between the carrier drum and the spool.

Although the Examiner has alleged that these features are somehow taught in the applied art, no language has been cited in any of the applied art as teaching or suggesting any of these features. Respectfully, although it is not disputed that such features as a CCD camera are known, this is insufficient to establish that it would have been obvious to use the same on the specific arrangement or configuration recited in claims 224 and 263 – especially when the recited line force has not been shown to be disclosed or suggested by the applied art.

Accordingly, as CLARKE with BEISSWANGER or MADRZAK or PFEIFFER or KLERELID erroneously fail to disclose or suggest the combination of features recited in at least claim 263, this rejection should be reversed.

**REJECTION OF DEPENDENT CLAIM 265 UNDER 35 U.S.C. § 103 IS IN ERROR**

The Examiner asserts that a fair combination of CLARKE and one of the devices known from each of the secondary documents teaches or suggests the features of claim 265. Appellant

respectfully disagrees.

Dependent claim 265 depends from claim 224, and recites:

one of:

a Crescent formed for forming the tissue web, wherein the tissue web is moved with a felt over the Crescent former and then over at least one evacuated device, and thereafter moved through a press nip formed by the at least one drying cylinder;

a Crescent former for forming the tissue web, wherein the tissue web is moved with a felt over the Crescent former and then over a suction roll, and thereafter through a press nip formed by the at least one drying cylinder; and

a Crescent former and a felt for forming the tissue web, wherein the tissue web is move from the Crescent former to an evacuation device, and thereafter through a press nip formed by the at least one drying cylinder.

Although the Examiner has alleged that these features are somehow taught in the applied art, no language has been cited in any of the applied art as teaching or suggesting any of these features. Respectfully, although it is not disputed that such features as a Crescent former are known, this is insufficient to establish that it would have been obvious to use the same on the specific arrangement or configuration recited in claims 224 and 265.

Accordingly, as CLARKE with BEISSWANGER or MADRZAK or PFEIFFER or KLERELID erroneously fail to disclose or suggest the combination of features recited in at least claim 265, this rejection should be reversed.

**REJECTION OF DEPENDENT CLAIM 267 UNDER 35 U.S.C. § 103 IS IN ERROR**

The Examiner asserts that a fair combination of CLARKE and one of the devices known from each of the secondary documents teaches or suggests the features of claim 267. Appellant respectfully disagrees.

Dependent claim 267 depends from claim 224, and recites:

- a shoe press arranged at the at least one drying cylinder and one of:
  - a line force being produced in the shoe press which is in the range of between about 60 kN/m to about 90 kN/m;
  - a maximum pressing pressure being produced in the shoe press that is less than or equal to 2 bar; and
  - a maximum pressing pressure being produced in the shoe press that is less than or equal to 1.5 bar.

Although the Examiner has alleged that these features are somehow taught in the applied art, no language has been cited in any of the applied art as teaching or suggesting any of these features. Respectfully, although it is not disputed that such features as a shoe press are known, this is insufficient to establish that it would have been obvious to use the same on the specific arrangement or configuration recited in claims 224 and 267.

Accordingly, as CLARKE with BEISSWANGER or MADRZAK or PFEIFFER or KLERELID erroneously fail to disclose or suggest the combination of features recited in at least claim 267, this rejection should be reversed.

**REJECTION OF DEPENDENT CLAIM 268 UNDER 35 U.S.C. § 103 IS IN ERROR**

The Examiner asserts that a fair combination of CLARKE and one of the devices known from each of the secondary documents teaches or suggests the features of claim 268. Appellant respectfully disagrees.

Dependent claim 268 depends from claim 224, and recites:

a shoe press arranged at the at least one drying cylinder, wherein the shoe press comprises a shoe press unit having a blind-drilled press shell.

Although the Examiner has alleged that these features are somehow taught in the applied art, no language has been cited in any of the applied art as teaching or suggesting any of these features.

Respectfully, although it is not disputed that such features as a shoe press are known, this is insufficient to establish that it would have been obvious to use the same on the specific arrangement or configuration recited in claims 224 and 268.

Accordingly, as CLARKE with BEISSWANGER or MADRZAK or PFEIFFER or KLERELID erroneously fail to disclose or suggest the combination of features recited in at least claim 268, this rejection should be reversed.

**REJECTION OF DEPENDENT CLAIM 270 UNDER 35 U.S.C. § 103 IS IN ERROR**

The Examiner asserts that a fair combination of CLARKE and one of the devices known from each of the secondary documents teaches or suggests the features of claim 270. Appellant respectfully disagrees.

Dependent claim 270 depends from claim 224, and recites:

wherein the creping doctor comprises a thickness that is less than or equal to 0.9 mm.

Although the Examiner has alleged that this feature is somehow taught in the applied art, no language has been cited in any of the applied art as teaching or suggesting this feature. Respectfully, although it is not disputed that such features as a doctor are known, this is insufficient to establish that it would have been obvious to use any specific type or thickness on the arrangement or configuration recited in claims 224 and 270.

Accordingly, as CLARKE with BEISSWANGER or MADRZAK or PFEIFFER or KLERELID erroneously fail to disclose or suggest the combination of features recited in at least claim 270, this rejection should be reversed.

**REJECTION OF DEPENDENT CLAIM 271 UNDER 35 U.S.C. § 103 IS IN ERROR**

The Examiner asserts that a fair combination of CLARKE and one of the devices known from each of the secondary documents teaches or suggests the features of claim 271. Appellant respectfully disagrees.

Dependent claim 271 depends from claim 224, and recites:

wherein an angle of attack between a tangent of the at least one drying cylinder and the creping doctor is less than or equal to 20°.

Although the Examiner has alleged that this feature is somehow taught in the applied art, no language has been cited in any of the applied art as teaching or suggesting this feature. Respectfully, although it is not disputed that such features as a doctor are known, this is insufficient to establish that it would have been obvious to use any specific type or angle on the arrangement or configuration recited in claims 224 and 271.

Accordingly, as CLARKE with BEISSWANGER or MADRZAK or PFEIFFER or KLERELID erroneously fail to disclose or suggest the combination of features recited in at least claim 271, this rejection should be reversed.

**REJECTION OF DEPENDENT CLAIM 272 UNDER 35 U.S.C. § 103 IS IN ERROR**

The Examiner asserts that a fair combination of CLARKE and one of the devices known from each of the secondary documents teaches or suggests the features of claim 272. Appellant respectfully disagrees.

Dependent claim 272 depends from claim 224, and recites:

wherein a rake angle ( $\beta$ ) of the creping doctor is greater than or equal to 15°..

Although the Examiner has alleged that this feature is somehow taught in the applied art, no language has been cited in any of the applied art as teaching or suggesting this feature. Respectfully, although it is not disputed that such features as a doctor are known, this is insufficient to establish that it would have been obvious to use any specific type or angle on the arrangement or configuration recited in claims 224 and 272.

Accordingly, as CLARKE with BEISSWANGER or MADRZAK or PFEIFFER or KLERELID erroneously fail to disclose or suggest the combination of features recited in at least claim 272, this rejection should be reversed.

**REJECTION OF DEPENDENT CLAIM 273 UNDER 35 U.S.C. § 103 IS IN ERROR**

The Examiner asserts that a fair combination of CLARKE and one of the devices known from each of the secondary documents teaches or suggests the features of claim 273. Appellant respectfully disagrees.

Dependent claim 273 depends from claim 224, and recites:

one of:

a device for compensating automatically for a growth of a roll diameter of the spool of the winding device; and  
a device for automatically setting the line force in the winding nip of the winding device.

Although the Examiner has alleged that such features are somehow taught in the applied art, no language has been cited in any of the applied art as teaching or suggesting such features. Respectfully, although it is not disputed that such features as compensating for growth of a spool are known, this is insufficient to establish that it would have been obvious to use a specific type device for doing so automatically in addition to the recited line force recited in claims 224 and 273.

Accordingly, as CLARKE with BEISSWANGER or MADRZAK or PFEIFFER or KLERELID erroneously fail to disclose or suggest the combination of features recited in at least claim 273, this rejection should be reversed.

**REJECTION OF DEPENDENT CLAIM 275 UNDER 35 U.S.C. § 103 IS IN ERROR**

The Examiner asserts that a fair combination of CLARKE and one of the devices known from each of the secondary documents teaches or suggests the features of claim 275. Appellant respectfully disagrees.

Dependent claim 275 depends from claim 274, and recites:

wherein the free web draw spans an entire distance between the creping doctor and the transfer belt, wherein the transfer belt is a single endless transfer belt, wherein the tissue web is supported on its underside by the transfer belt over an entire distance from where the tissue web first contacts the transfer belt to the winding nip, and wherein the tissue web is transported the entire distance from where the tissue web first contacts the transfer belt to the winding device using only the single transfer belt.

Although the Examiner has alleged that these features are somehow taught in the applied art, no language has been cited in any of the applied art as teaching or suggesting any of these features. Respectfully, although it is not disputed that such features as a single transfer belt are known, this is insufficient to establish that it would have been obvious to use the same on the specific arrangement or configuration recited in claims 274 and 275 – especially when CLARKE teaches in Fig. 4 to place the belt above the web and thus teaches the opposite of supporting the web on its underside.

Accordingly, as CLARKE with BEISSWANGER or MADRZAK or PFEIFFER or KLERELID erroneously fail to disclose or suggest the combination of features recited in at least claim 275, this rejection should be reversed.

**REJECTION OF DEPENDENT CLAIM 277 UNDER 35 U.S.C. § 103 IS IN ERROR**

The Examiner asserts that a fair combination of CLARKE and one of the devices known from each of the secondary documents teaches or suggests the features of claim 277. Appellant respectfully disagrees.

Dependent claim 277 depends from claim 274, and recites:

wherein the transfer device is a single transfer belt which supports the tissue web from underneath.

Although the Examiner has alleged that these features are somehow taught in the applied art, no language has been cited in any of the applied art as teaching or suggesting any of these features. Respectfully, although it is not disputed that such features as a single transfer belt are known, this is insufficient to establish that it would have been obvious to use the same on the specific arrangement or configuration recited in claims 274 and 277 – especially when CLARKE teaches in Fig. 4 to place the belt above the web and thus teaches the opposite of supporting the web on its underside.

Accordingly, as CLARKE with BEISSWANGER or MADRZAK or PFEIFFER or KLERELID erroneously fail to disclose or suggest the combination of features recited in at least claim 277, this rejection should be reversed.

**REJECTION OF DEPENDENT CLAIM 279 UNDER 35 U.S.C. § 103 IS IN ERROR**

The Examiner asserts that a fair combination of CLARKE and one of the devices known from each of the secondary documents teaches or suggests the features of claim 279. Appellant respectfully disagrees.

Dependent claim 279 depends from claims 274 and 278, and recites:

wherein the transfer device is a single transfer belt which supports the tissue web from underneath.

Although the Examiner has alleged that these features are somehow taught in the applied art, no language has been cited in any of the applied art as teaching or suggesting any of these features. Respectfully, although it is not disputed that such features as a single transfer belt are known, this is insufficient to establish that it would have been obvious to use the same on the specific arrangement or configuration recited in claims 274, 278 and 279 – especially when CLARKE teaches in Fig. 4 to place the belt above the web and thus teaches the opposite of supporting the web on its underside.

Accordingly, as CLARKE with BEISSWANGER or MADRZAK or PFEIFFER or KLERELID erroneously fail to disclose or suggest the combination of features recited in at least claim 279, this rejection should be reversed.

**REJECTION OF DEPENDENT CLAIM 280 UNDER 35 U.S.C. § 103 IS IN ERROR**

The Examiner asserts that a fair combination of CLARKE and one of the devices known from each of the secondary documents teaches or suggests the features of claim 280. Appellant respectfully disagrees.

Dependent claim 280 depends from claim 224, and recites:

wherein the tissue web is largely supported on its underside by the transfer device over an entire distance from the creping doctor to the winding nip, and, after moving around the winding drum, returns to a position where the free web draw meets the transfer device.

Although the Examiner has alleged that these features are somehow taught in the applied art, no language has been cited in any of the applied art as teaching or suggesting any of these features. Respectfully, although it is not disputed that such features as a transfer belt are known, this is

insufficient to establish that it would have been obvious to use the same on the specific arrangement or configuration recited in claims 224 and 280 – especially when CLARKE teaches in Fig. 4 to place the belt above the web and thus teaches the opposite of supporting the web on its underside.

Accordingly, as CLARKE with BEISSWANGER or MADRZAK or PFEIFFER or KLERELID erroneously fail to disclose or suggest the combination of features recited in at least claim 280, this rejection should be reversed.

**REJECTION OF DEPENDENT CLAIM 282 UNDER 35 U.S.C. § 103 IS IN ERROR**

The Examiner asserts that a fair combination of CLARKE and one of the devices known from each of the secondary documents teaches or suggests the features of claim 282. Appellant respectfully disagrees.

Dependent claim 282 depends from claim 224, and recites:

wherein the transfer device is a single transfer belt which supports the tissue web from underneath and wherein the free web draw is a short free web draw arranged between the creping doctor and the transfer belt.

Although the Examiner has alleged that these features are somehow taught in the applied art, no language has been cited in any of the applied art as teaching or suggesting any of these features. Respectfully, although it is not disputed that such features as a transfer belt are known, this is insufficient to establish that it would have been obvious to use the same on the specific arrangement or configuration recited in claims 224 and 282 – especially when CLARKE teaches in Fig. 4 to place the belt above the web and thus teaches the opposite of supporting the web on its underside.

Accordingly, as CLARKE with BEISSWANGER or MADRZAK or PFEIFFER or KLERELID erroneously fail to disclose or suggest the combination of features recited in at least

claim 282, this rejection should be reversed.

**REJECTION OF DEPENDENT CLAIM 283 UNDER 35 U.S.C. § 103 IS IN ERROR**

The Examiner asserts that a fair combination of CLARKE and one of the devices known from each of the secondary documents teaches or suggests the features of claim 283. Appellant respectfully disagrees.

Dependent claim 283 depends from claim 224, and recites:

wherein the tissue web is supported on its underside by the transfer device over an entire distance from where the tissue web first contacts the transfer device to the winding nip and an upper surface of the tissue web is exposed over an entire distance from where the tissue web first contacts the transfer belt to the winding device.

Although the Examiner has alleged that these features are somehow taught in the applied art, no language has been cited in any of the applied art as teaching or suggesting any of these features. Respectfully, although it is not disputed that such features as a transfer belt are known, this is insufficient to establish that it would have been obvious to use the same on the specific arrangement or configuration recited in claims 224 and 282 – especially when CLARKE teaches in Fig. 4 to place the belt above the web and thus teaches the opposite of supporting the web on its underside.

Accordingly, as CLARKE with BEISSWANGER or MADRZAK or PFEIFFER or KLERELID erroneously fail to disclose or suggest the combination of features recited in at least claim 283, this rejection should be reversed.

**REJECTION OF DEPENDENT CLAIM 285 UNDER 35 U.S.C. § 103 IS IN ERROR**

The Examiner asserts that a fair combination of CLARKE and one of the devices known from each of the secondary documents teaches or suggests the features of claim 285. Appellant

respectfully disagrees.

Dependent claim 285 depends from claims 224 and 282, and recites:

a scanning device arranged over the single endless belt.

Although the Examiner has alleged that such features are somehow taught in the applied art, no language has been cited in any of the applied art as teaching or suggesting such features. Respectfully, although it is not disputed that such features as a scanning device are known, this is insufficient to establish that it would have been obvious to use such a device over a belt as recited in claims 224, 282 and 285.

Accordingly, as CLARKE with BEISSWANGER or MADRZAK or PFEIFFER or KLERELID erroneously fail to disclose or suggest the combination of features recited in at least claim 285, this rejection should be reversed.

**REJECTION OF DEPENDENT CLAIM 286 UNDER 35 U.S.C. § 103 IS IN ERROR**

The Examiner asserts that a fair combination of CLARKE and one of the devices known from each of the secondary documents teaches or suggests the features of claim 286. Appellant respectfully disagrees.

Dependent claim 286 depends from claim 224, and recites:

wherein the tissue web is supported only on its underside by the transfer device oven an entire distance from where the tissue web first contacts the transfer device to the winding nip.

Although the Examiner has alleged that these features are somehow taught in the applied art, no language has been cited in any of the applied art as teaching or suggesting any of these features. Respectfully, although it is not disputed that such features as a transfer belt are known, this is

insufficient to establish that it would have been obvious to use the same on the specific arrangement or configuration recited in claims 224 and 286 – especially when CLARKE teaches in Fig. 4 to place the belt above the web and thus teaches the opposite of supporting the web on its underside.

Accordingly, as CLARKE with BEISSWANGER or MADRZAK or PFEIFFER or KLERELID erroneously fail to disclose or suggest the combination of features recited in at least claim 286, this rejection should be reversed.

**REJECTION OF DEPENDENT CLAIM 287 UNDER 35 U.S.C. § 103 IS IN ERROR**

The Examiner asserts that a fair combination of CLARKE and one of the devices known from each of the secondary documents teaches or suggests the features of claim 287. Appellant respectfully disagrees.

Dependent claim 287 depends from claims 224, 282 and 285, and recites:

wherein an upper surface of the tissue web is exposed over an entire distance from where the tissue web first contacts the transfer belt to the winding device.

Although the Examiner has alleged that these features are somehow taught in the applied art, no language has been cited in any of the applied art as teaching or suggesting any of these features. Respectfully, although it is not disputed that such features as a transfer belt are known, this is insufficient to establish that it would have been obvious to use the same on the specific arrangement or configuration recited in claims 224, 282, 285 and 287 – especially when CLARKE teaches in Fig. 4 to place the belt above the web and thus teaches the opposite of leaving exposed an upper surface of the tissue web.

Accordingly, as CLARKE with BEISSWANGER or MADRZAK or PFEIFFER or

KLERELID erroneously fail to disclose or suggest the combination of features recited in at least claim 287, this rejection should be reversed.

**REJECTION OF DEPENDENT CLAIM 288 UNDER 35 U.S.C. § 103 IS IN ERROR**

The Examiner asserts that a fair combination of CLARKE and one of the devices known from each of the secondary documents teaches or suggests the features of claim 288. Appellant respectfully disagrees.

Dependent claim 288 depends from claim 224, and recites:

wherein the free web draw spans an entire distance between the creping doctor and the transfer device, wherein the transfer device is a single endless transfer belt, wherein the tissue web is supported on its underside by the transfer belt over an entire distance from where the tissue web first contacts the transfer belt to the winding nip, and wherein the tissue web is transported the entire distance from where the tissue web first contacts the transfer belt to the winding device using only the single transfer belt.

Although the Examiner has alleged that these features are somehow taught in the applied art, no language has been cited in any of the applied art as teaching or suggesting any of these features. Respectfully, although it is not disputed that such features as a transfer belt are known, this is insufficient to establish that it would have been obvious to use the same on the specific arrangement or configuration recited in claims 224 and 288 – especially when CLARKE teaches in Fig. 4 to place the belt above the web and thus teaches the opposite of supporting the web on its underside.

Accordingly, as CLARKE with BEISSWANGER or MADRZAK or PFEIFFER or KLERELID erroneously fail to disclose or suggest the combination of features recited in at least claim 288, this rejection should be reversed.

**REJECTION OF DEPENDENT CLAIMS 225-227, 229, 232-234, 236, 237, 240, 241, 243, 245-247, 249-251, 254-256, 260, 262, 264, 266, 276, 278, 281, 284 AND 289 UNDER 35 U.S.C. § 103 IS IN  
ERROR**

Claims 225-227, 229, 232-234, 236-237, 240, 241, 243, 245-247, 249-251, 254-256, 260, 262, 264, 266, 269, 276, 278, 281, 284 and 289 respectfully depend from at least independent claims 224 and 274, and are believed to be allowable based at least on their dependence.

**CONCLUSION**

Each of claims 224-243 and 245-289 are patentable under 35 U.S.C. §103. Specifically, the applied art of record, even in properly combined, fails to disclose or suggest the unique combination of features recited in Appellant's claims 224-243 and 245-289. Accordingly, Appellant respectfully requests that the Board reverse the decision of the Examiner to reject claims 224-243 and 245-289 under 35 U.S.C. § 103, and remand the application to the Examiner for withdrawal of the above-noted rejections.

Respectfully submitted,  
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Attachments: Claims Appendix, Evidence Appendix, and Related Proceedings Appendix

**(VIII) CLAIMS ON APPEAL**

224. A device for producing a tissue web comprising:  
at least one drying cylinder;  
a creping doctor arranged on the at least one drying cylinder;  
a winding device for winding up the tissue web;  
the winding device comprising a winding nip formed between a winding drum and a spool;  
a transfer device at least largely bridging an entire distance between the creping doctor and the winding device and moves around the winding drum of the winding device;  
a free web draw arranged between the creping doctor and the winding device; and  
a mechanism for at least one of controlling and measuring a line force in the winding nip,  
wherein the tissue web is supported on only one side by the transfer device between the free web draw and the winding nip, and  
wherein the line force is less than or equal to 0.8 kN/m.

225. The device of claim 224, wherein the free web draw is one of:

< 1 m; and  
< 0.5 m.

226. The device of claim 224, wherein the transfer device is at least one of:  
arranged on an underside of the tissue web; and  
begins to support the tissue web underneath the creping doctor.

227. The device of claim 224, wherein the transfer device comprises one of:  
a belt;  
an embossing belt;  
a felt;

an embossing felt;  
a membrane;  
a Spectra membrane;  
a structured material; and  
a TAD belt.

228. The device of claim 224, wherein the spool is one of a driven spool and a spool having displacement control and wherein the transfer device is led through the winding nip of the winding device with the tissue web.

229. The device of claim 224, further comprising a device which subjects the tissue web to a patterning in the winding nip of the winding device.

230. The device of claim 224, wherein the line force is about 0.2 kN/m.

231. The device of claim 224, further comprising one of:

a device for subjecting the tissue web to wet formation arranged between the at least one drying cylinder and the winding device;

a device for rewetting and applying a vacuum to the tissue web arranged between the at least one drying cylinder and the winding device;

a device for rewetting and a device for applying a vacuum to the tissue web arranged between the at least one drying cylinder and the winding device;

a device for rewetting and a device for applying a vacuum to the tissue web arranged between the at least one drying cylinder and the winding device, the rewetting device being arranged on an upper side of the tissue web and the device for applying vacuum being arranged on an underside of the tissue web; and

a device for rewetting, a device for applying a vacuum, and a device for drying the tissue web arranged between the at least one drying cylinder and the winding device, the drying device is

arranged after the rewetting device and the device for applying a vacuum.

232. The device of claim 224, further comprising at least one of:  
at least one infrared drying device; and  
a drying hood.

233. The device of claim 224, wherein the tissue web has, at the creping doctor, one of:  
a dryness of between about 70% and about 100%; and  
a dryness of between about 93% and about 98%.

234. The device of claim 224, wherein a creping rate is one of:  
between about 0% and about 50%; and  
between about 10% and about 25%.

235. The device of claim 224, wherein the device does not utilize a threading system.

236. The device of claim 224, further comprising one of:  
a device for applying vacuum to the tissue web positioned after the creping doctor; and  
a device for blowing on the tissue web positioned after the creping doctor.

237. The device of claim 224, wherein the winding drum comprises one of:  
an uncovered winding drum;  
a covered winding drum;  
a winding drum having a smooth shell;  
a winding drum having a blind-drilled shell;  
a winding drum having a drilled shell; and  
a winding drum having a shell with grooves.

238. The device of claim 224, further comprising one of:  
a pulper arranged under the at least one drying cylinder;  
a pulper arranged under the winding device; and  
a device for blowing off excess paper present on a winding drum of the winding device into a pulper.

239. The device of claim 224, further comprising one of:  
an air deflector arranged on a winding drum of the winding device; and  
a doctor arranged on a winding drum of the winding device.

240. The device of claim 224, wherein the tissue web has at least one of:  
a low basis weight; and  
a low tensile strength.

241. The device of claim 224, further comprising:  
a headbox;  
an endless carrier belt; and  
a press nip formed between the at least one drying cylinder and a backing unit.

242. The device of claim 241, wherein the headbox comprises a multilayer headbox, to which at least two grades of stock can be supplied, and further comprising one of:  
a device for influence a hardness of a roll upon which the tissue web is wound;  
a device for controlling a hardness of a roll upon which the tissue web is wound; and  
a device for regulating a hardness of a roll upon which the tissue web is wound.

243. The device of claim 224, wherein the at least one drying cylinder is a Yankee cylinder.

245. The device of claim 224, further comprising:

a former having two circulating endless belts which run together and form a stock inlet gap, the two circulating endless belts being led over a forming element such an inner belt of the two circulating endless belts comes into contact with the forming element.

246. The device of claim 224, further comprising a Crescent former and a felt for forming the tissue web.

247. The device of claim 224, wherein the tissue web is led through at least one shoe press on a carrier belt.

248. The device of claim 224, further comprising one of:

a backing unit assigned to the at least one drying cylinder; and  
a shoe press unit arranged at the at least one drying cylinder.

249. The device of claim 224, further comprising a drying hood and a press nip arranged at the at least one drying cylinder.

250. The device of claim 224, further comprising one of:

a multilayer headbox subdivided into at least two channels by at least one slat extending over an entire machine width;

a multilayer headbox subdivided at least substantially symmetrically into two channels by a slat;

a multilayer headbox subdivided at least substantially symmetrically into two channels by a slat that extends outward beyond a nozzle in a region of an outlet gap;

a multilayer headbox equipped with sectional dilution water regulation over a machine width; and

a multilayer headbox equipped with sectional dilution water control over a machine width.

251. The device of claim 224, wherein the tissue web is formed with one of:  
at least two layers utilizing sectional dilution water regulation and/or control in the headbox;  
and

at least one layer utilizing sectional dilution water regulation and/or control in the headbox,  
whereby the at least one layer faces a forming roll.

252. The device of claim 224, wherein the tissue web is subjected to greater drying by a  
drying hood than the at least one drying cylinder.

253. The device of claim 252, wherein a ratio of the proportion of the drying by the drying  
hood and the proportion of the drying with the at least one drying cylinder is one of:

greater than 55:45;  
greater than or equal to 60:30;  
greater than or equal to 65:35; and  
greater than or equal to 70:30.

254. The device of claim 224, further comprising a drying hood operating one of:

at a temperature that is greater than or equal to 400°C;  
at a temperature that is greater than or equal to 500°C;  
at a temperature that is greater than or equal to 600°C; and  
at a temperature that is greater than or equal to 700°C.

255. The device of claim 224, wherein the at least one drying cylinder utilizes a steam  
pressure in the at least one drying cylinder that is one of:

less than or equal to 0.7 MPa;  
less than or equal to 0.6 MPa; and  
less than or equal to 0.5 MPa.

256. The device of claim 224, further comprising one of:

the tissue web being moved over a carrier drum of the winding device and then wound up onto the spool of the winding device; and

the tissue web being moved over a driven carrier drum of the winding device and then wound up onto the spool of the winding device and the spool is a driven spool.

257. The device of claim 256, wherein the line force in the winding nip between the carrier drum and the spool is one of:

less than or equal to 0.5 kN/m; and

less than or equal to 0.2 kN/m.

258. The device of claim 256, wherein a maximum difference between a circumferential speed of the spool and a circumferential speed of the carrier drum is less than 10%.

259. The device of claim 224, further comprising one of:

an arrangement for maintaining the free web draw and a drive assigned to the winding drum, the free web draw being maintained irrespective of the line force produced in the winding nip;

an arrangement for controlling the free web draw and a drive assigned to the winding drum, the free web draw being controlled irrespective of the line force produced in the winding nip;

an arrangement for regulating the free web draw and a drive assigned to the winding drum, the free web draw being controlled irrespective of the line force produced in the winding nip;

an arrangement for controlling the free web draw between the at least one drying cylinder and the winding drum via a drive assigned to the winding drum as a function of a speed of the winding drum; and

an arrangement for regulating the free web draw between the at least one drying cylinder and the winding drum via a drive assigned to the winding drum as a function of a speed of the winding drum.

260. The device of claim 224, wherein the winding drum is a carrier drum and the spool is a movable spool and one of:

the winding device comprises the carrier drum mounted in a fixed location and the movable spool;

the winding device comprises the carrier drum mounted in a fixed location and the movable spool, whereby movement of the spool compensates for an increase in roll diameter of the spool;

the winding device comprises the carrier drum mounted in a fixed location and the movable spool, whereby the line force in the winding nip of the winding device is set via the movable spool;

the winding device comprises the carrier drum mounted in a fixed location and the movable spool, whereby the line force in the winding nip of the winding device and a growth of a diameter of the spool is set and compensated for using a common control loop; and

the winding device comprises the carrier drum mounted in a fixed location and the movable spool, whereby the line force in the winding nip of the winding device is determined via at least one force sensor.

261. The device of claim 224, wherein the winding drum is a carrier drum and the spool is a movable spool, and wherein the line force is one of:

less than or equal to 0.5 kN/m; and

less than or equal to 0.2 kN/m.

262. The device of claim 224, wherein the winding drum is a carrier drum and the spool is a movable spool, and wherein a displacement of the spool is controlled by measuring one of:

a roll diameter of the spool;

a position of the spool relative to the carrier drum;

a position of the spool utilizing sensors; and

a position of the spool utilizing LVDT (linear variable differential transformer) sensors.

263. The device of claim 224, wherein the winding drum is a carrier drum and the spool is a movable spool, and wherein one of:

the line force in the winding nip of the winding device is set and controlled and a region of the winding nip is monitored with a CCD camera;

the line force in the winding nip of the winding device is set and controlled and a region of the winding nip is monitored with a CCD camera; and

a CCD camera registers a distance between the carrier drum and the spool.

264. The device of claim 224, wherein the tissue web has a mass per unit area in an uncreped state that is in the range of between about  $11 \text{ g/m}^2$  to about  $20 \text{ g/m}^2$  and in a creped state is in the range of between about  $14 \text{ g/m}^2$  to about  $24 \text{ g/m}^2$ .

265. The device of claim 224, further comprising one of:

a Crescent formed for forming the tissue web, wherein the tissue web is moved with a felt over the Crescent former and then over at least one evacuated device, and thereafter moved through a press nip formed by the at least one drying cylinder;

a Crescent former for forming the tissue web, wherein the tissue web is moved with a felt over the Crescent former and then over a suction roll, and thereafter through a press nip formed by the at least one drying cylinder; and

a Crescent former and a felt for forming the tissue web, wherein the tissue web is move from the Crescent former to an evacuation device, and thereafter through a press nip formed by the at least one drying cylinder.

266. The device of claim 224, further comprising a shoe press arranged at the at least one drying cylinder, wherein the shoe press has a shoe length measured in a web running direction that is one of:

greater than or equal to 80 mm; and

greater than or equal to 120 mm.

267. The device of claim 224, further comprising a shoe press arranged at the at least one drying cylinder and one of:

a line force being produced in the shoe press which is in the range of between about 60 kN/m to about 90 kN/m;

a maximum pressing pressure being produced in the shoe press that is less than or equal to 2 bar; and

a maximum pressing pressure being produced in the shoe press that is less than or equal to 1.5 bar.

268. The device of claim 224, further comprising a shoe press arranged at the at least one drying cylinder, wherein the shoe press comprises a shoe press unit having a blind-drilled press shell.

269. The device of claim 224, wherein the at least one drying cylinder comprises one of:

- a Yankee cylinder; and

- a Yankee cylinder with reinforcing ribs in an interior thereof.

270. The device of claim 224, wherein the creping doctor comprises a thickness that is less than or equal to 0.9 mm.

271. The device of claim 224, wherein an angle of attack between a tangent of the at least one drying cylinder and the creping doctor is less than or equal to 20°.

272. The device of claim 224, wherein a rake angle ( $\beta$ ) of the creping doctor is greater than or equal to 15°.

273. The device of claim 224, further comprising one of:

a device for compensating automatically for a growth of a roll diameter of the spool of the winding device; and

a device for automatically setting the line force in the winding nip of the winding device.

274. A device for producing a tissue web comprising:  
at least one drying cylinder;  
a creping doctor arranged on the at least one drying cylinder;  
a winding device for winding up the tissue web;  
the winding device comprising a winding nip formed between a winding drum and a spool;  
a transfer belt at least largely bridging an entire distance between the creping doctor and the winding device and moving around the winding drum of the winding device;  
a free web draw arranged between the creping doctor and the winding device; and  
a mechanism for at least one of controlling and measuring a line force in the winding nip,  
wherein the tissue web is supported on only one side by the transfer belt between the free web draw and the winding nip and the tissue web has an opposite unsupported side between the creping doctor and the winding device, and  
wherein the line force is less than or equal to 0.8 kN/m.

275. The device of claim 274, wherein the free web draw spans an entire distance between the creping doctor and the transfer belt, wherein the transfer belt is a single endless transfer belt, wherein the tissue web is supported on its underside by the transfer belt over an entire distance from where the tissue web first contacts the transfer belt to the winding nip, and wherein the tissue web is transported the entire distance from where the tissue web first contacts the transfer belt to the winding device using only the single transfer belt.

276. The device of claim 224, wherein the transfer device is a single transfer belt.

277. The device of claim 224, wherein the transfer device is a single transfer belt which supports the tissue web from underneath.

278. The device of claim 224, wherein only the free web draw is arranged between the creping doctor and the transfer device.

279. The device of claim 278, wherein the transfer device is a single transfer belt which supports the tissue web from underneath.

280. The device of claim 224, wherein the tissue web is largely supported on its underside by the transfer device over an entire distance from the creping doctor to the winding nip, and, after moving around the winding drum, returns to a position where the free web draw meets the transfer device.

281. The device of claim 280, wherein the transfer device is a single transfer belt.

282. The device of claim 224, wherein the transfer device is a single transfer belt which supports the tissue web from underneath and wherein the free web draw is a short free web draw arranged between the creping doctor and the transfer belt.

283. The device of claim 224, wherein the tissue web is supported on its underside by the transfer device over an entire distance from where the tissue web first contacts the transfer device to the winding nip and an upper surface of the tissue web is exposed over an entire distance from where the tissue web first contacts the transfer belt to the winding device.

284. The device of claim 283, wherein the transfer device is a single endless belt that, after moving around the winding drum, returns to a position where the free web draw meets the transfer belt.

285. The device of claim 282, further comprising a scanning device arranged over the single endless belt.

286. The device of claim 224, wherein the tissue web is supported only on its underside by the transfer device over an entire distance from where the tissue web first contacts the transfer device to the winding nip.

287. The device of claim 285, wherein an upper surface of the tissue web is exposed over an entire distance from where the tissue web first contacts the transfer belt to the winding device.

288. The device of claim 224, wherein the free web draw spans an entire distance between the creping doctor and the transfer device, wherein the transfer device is a single endless transfer belt, wherein the tissue web is supported on its underside by the transfer belt over an entire distance from where the tissue web first contacts the transfer belt to the winding nip, and wherein the tissue web is transported the entire distance from where the tissue web first contacts the transfer belt to the winding device using only the single transfer belt.

289. The device of claim 224, wherein the free web draw spans an entire distance between the creping doctor and the transfer device, and wherein the transfer device is a single endless transfer belt.

**(IX) EVIDENCE APPENDIX**

This section lists evidence submitted pursuant to 37 C.F.R. §§1.130, 1.131, or 1.132, or any other evidence entered by the Examiner and relied upon by Appellant in this appeal, and provides for each piece of evidence a brief statement setting forth where in the record that evidence was entered by the Examiner. Copies of each piece of evidence are provided as required by 37 C.F.R. §41.37(c)(ix).

NO.	EVIDENCE	BRIEF STATEMENT SETTING FORTH WHERE IN THE RECORD THE EVIDENCE WAS ENTERED BY THE EXAMINER
1	N/A	N/A

**(X) RELATED PROCEEDINGS APPENDIX**

Pursuant to 37 C.F.R. §41.37(c)(x), copies of the following decisions rendered by a court of the Board in any proceeding identified above under 37 C.F.R. §41.37(c)(1)(ii) are enclosed herewith.

NO.	TYPE OF PROCEEDING	REFERENCE NO.	DATE
1	N/A	N/A	N/A